What is claim d is:

1. An optical memory plate providing radiation inscription of data and read-out of thus stored inscription data, characterized in that said optical memory comprises a europium doped alkali metal halide storage phosphor layer, substantially free of alkaline earth metals.

2. Optical memory plate according to claim 1, wherein said europium doped alkali metal halide phosphor layer, substantially free of alkaline earth metals is a CsBr:Eu phosphor layer.

3. Optical memory plate according to claim 2, wherein said CsBr:Eu phosphor layer is a binderless needle-shaped CsBr:Eu phosphor layer.

4. Optical memory plate according to claim 1, wherein said radiation inscription proceeds with radiation having a wavelength of 400 nm or less.

5. Optical memory plate according to claim 2, wherein said radiation inscription proceeds with radiation having a wavelength of 400 nm or less.

6. Optical memory plate according to claim 3, wherein said radiation inscription proceeds with radiation having a wavelength of 400 nm or less.

7. Optical memory plate according to claim 1, characterized by a lowered fluorescence efficiency in the blue light wavelength range from 400 nm up to 500 nm upon irradiation with ultraviolet radiation.

8. Optical memory plate according to claim 2, characterized by a lowered fluorescence efficiency in the blue light wavelength range

from 400 nm up to 500 nm upon irradiation with ultraviolet radiation.

9. Optical memory plate according to claim 3, characterized by a lowered fluorescence efficiency in the blue light wavelength range from 400 nm up to 500 nm upon irradiation with ultraviolet radiation.

10. Optical memory plate according to claim 4, characterized by a lowered fluorescence efficiency in the blue light wavelength range from 400 nm up to 500 nm upon irradiation with ultraviolet radiation.

11. Optical memory plate according to claim 5, characterized by a lowered fluorescence efficiency in the blue light wavelength range from 400 nm up to 500 nm upon irradiation with ultraviolet radiation.

12. Optical memory plate according to claim 6, characterized by a lowered fluorescence efficiency in the blue light wavelength range from 400 nm up to 500 nm upon irradiation with ultraviolet radiation.

13. Optical memory plate according to claim 1, characterized by a lowered fluorescence efficiency in the red light wavelength range from 550 nm up to 700 nm upon irradiation with ultraviolet radiation.

14. Optical memory plate according to claim 2, characterized by a lowered fluorescence efficiency in the red light wavelength range from 550 nm up to 700 nm upon irradiation with ultraviolet radiation.

15. Optical memory plate according to claim 3, characterized by a lowered fluorescence efficiency in the red light wavelength range from 550 nm up to 700 nm upon irradiation with ultraviolet radiation.

16. Optical memory plate according to claim 4, characterized by a lowered fluorescence efficiency in the red light wavelength range from 550 nm up to 700 nm upon irradiation with ultraviolet radiation.

17. Optical memory plate according to claim 5, characterized by a lowered fluorescence efficiency in the red light wavelength range from 550 nm up to 700 nm upon irradiation with ultraviolet radiation.

18. Optical memory plate according to claim 6, characterized by a lowered fluorescence efficiency in the red light wavelength range from 550 nm up to 700 nm upon irradiation with ultraviolet radiation.

19. Data storage optical medium, comprising an optical memory plate according to claim 1, coated on a substrate selected from the group consisting of aluminum oxide (Al_2O_3), ultraviolet-enhanced aluminum, anodized aluminum, amorphous carbon, PET, glass, colored glass, quarz, a ceramic material and a heat-resistant resin.

20. Data storage optical medium, comprising an optical memory plate according to claim 2, coated on a substrate selected from the group consisting of aluminum oxide (Al_2O_3), ultraviolet-enhanced aluminum, anodized aluminum, amorphous carbon, PET, glass, colored glass, quarz, a ceramic material and a heat-resistant resin.

21. Data storage optical medium, comprising an optical memory plate according to claim 3, coated on a substrate selected from the group

consisting of aluminum oxide (Al_2O_3), ultraviolet-enhanced aluminum, anodized aluminum, amorphous carbon, PET, glass, colored glass, quarz, a ceramic material and a heat-resistant resin.

22. Data storage optical medium according to claim 19, wherein a thin metal layer or a parylene layer is coated between said substrate and and said optical data storage layer.

23. Data storage optical medium according to claim 20, wherein a thin metal layer or a parylene layer is coated between said substrate and and said optical data storage layer.

24. Data storage optical medium according to claim 21, wherein a thin metal layer or a parylene layer is coated between said substrate and and said optical data storage layer.

25. Data storage optical medium according to claim 19, wherein said optical data storage layer is overcoated on top thereof with a protective layer that is transmitting ultraviolet radiation in the wavelength range from 150 to 400 nm.

26. Data storage optical medium according to claim 20, wherein said optical data storage layer is overcoated on top thereof with a protective layer that is transmitting ultraviolet radiation in the wavelength range from 150 to 400 nm.

27. Data storage optical medium according to claim 21, wherein said optical data storage layer is overcoated on top thereof with a protective layer that is transmitting ultraviolet radiation in the wavelength range from 150 to 400 nm.

28. Data storage optical medium according to claim 22, wherein said optical data storage layer is overcoated on top thereof with a

protective layer that is transmitting ultraviolet radiation in the wavelength range from 150 to 400 nm.

29. Data storage optical medium according to claim 23, wherein said optical data storage layer is overcoated on top thereof with a protective layer that is transmitting ultraviolet radiation in the wavelength range from 150 to 400 nm.

30. Data storage optical medium according to claim 24, wherein said optical data storage layer is overcoated on top thereof with a protective layer that is transmitting ultraviolet radiation in the wavelength range from 150 to 400 nm.

31. Data storage optical medium, according to claim 25, wherein said protective layer is quartz, a synthetic fused silica, sapphire or MgF_2.

32. Data storage optical medium, according to claim 26, wherein said protective layer is quartz, a synthetic fused silica, sapphire or MgF_2.

33. Data storage optical medium, according to claim 27, wherein said protective layer is quartz, a synthetic fused silica, sapphire or MgF_2.

34. Data storage optical medium, according to claim 28, wherein said protective layer is quartz, a synthetic fused silica, sapphire or MgF_2.

35. Data storage optical medium, according to claim 29, wherein said protective layer is quartz, a synthetic fused silica, sapphire or MgF_2.

36. Data storage optical medium, according to claim 30, wherein said protective layer is quartz, a synthetic fused silica, sapphire or MgF_2.

37. Data storage optical medium according to claims 19, wherein said medium is suitable for use in an application selected from the group consisting of computer industry, radiographic imaging systems, security industry, identification or verification, and protection against forgery.

38. Data storage optical medium according to claims 20, wherein said medium is suitable for use in an application selected from the group consisting of computer industry, radiographic imaging systems, security industry, identification or verification, and protection against forgery.

39. Data storage optical medium according to claims 21, wherein said medium is suitable for use in an application selected from the group consisting of computer industry, radiographic imaging systems, security industry, identification or verification, and protection against forgery.

40. Data storage optical medium according to claims 22, wherein said medium is suitable for use in an application selected from the group consisting of computer industry, radiographic imaging systems, security industry, identification or verification, and protection against forgery.

41. Data storage optical medium according to claims 23, wherein said medium is suitable for use in an application selected from the group consisting of computer industry, radiographic imaging systems, security industry, identification or verification, and protection against forgery.

42. Data storage optical medium according to claims 24, wherein said medium is suitable for use in an application selected from the group consisting of computer industry, radiographic imaging systems, security industry, identification or verification, and protection against forgery.

43. Data storage optical medium according to claims 25, wherein said medium is suitable for use in an application selected from the group consisting of computer industry, radiographic imaging systems, security industry, identification or verification, and protection against forgery.

44. Data storage optical medium according to claims 26, wherein said medium is suitable for use in an application selected from the group consisting of computer industry, radiographic imaging systems, security industry, identification or verification, and protection against forgery.

45. Data storage optical medium according to claims 27, wherein said medium is suitable for use in an application selected from the group consisting of computer industry, radiographic imaging systems, security industry, identification or verification, and protection against forgery.

46. Data storage optical medium according to claims 28, wherein said medium is suitable for use in an application selected from the group consisting of computer industry, radiographic imaging systems, security industry, identification or verification, and protection against forgery.

47. Data storage optical medium according to claims 29, wherein said medium is suitable for use in an application selected from the group consisting of computer industry, radiographic imaging systems,

security industry, identification or verification, and protection against forgery.

48. Data storage optical medium according to claims 30, wherein said medium is suitable for use in an application selected from the group consisting of computer industry, radiographic imaging systems, security industry, identification or verification, and protection against forgery.

49. Method of recording data in an optical memory plate according to claim 1, by the step of exposing said plate with a radiation source selected from the group consisting of a mercury vapor lamp at 254 nm, a deuterium lamp, a xenon lamp, a krypton lamp, a quadruplicated - frequency enhanced - Nd:YAG, Nd:YFL or Nd:YVO laser, an Alexandrite laser, a dye laser, a frequency-quadruplicated diode laser and gas excimer lasers consisting of F_2 (157 nm), ArF (193 nm), KrF (248 nm), XeBr (282 nm) or XeCl (308 nm).

50. Method of recording data in an optical memory plate according to claim 2, by the step of exposing said plate with a radiation source selected from the group consisting of a mercury vapor lamp at 254 nm, a deuterium lamp, a xenon lamp, a krypton lamp, a quadruplicated - frequency enhanced - Nd:YAG, Nd:YFL or Nd:YVO laser, an Alexandrite laser, a dye laser, a frequency-quadruplicated diode laser and gas excimer lasers consisting of F_2 (157 nm), ArF (193 nm), KrF (248 nm), XeBr (282 nm) or XeCl (308 nm).

51. Method of recording data in an optical memory plate according to claim 3, by the step of exposing said plate with a radiation source selected from the group consisting of a mercury vapor lamp at 254 nm, a deuterium lamp, a xenon lamp, a krypton lamp, a quadruplicated - frequency enhanced - Nd:YAG, Nd:YFL or Nd:YVO laser, an Alexandrite laser, a dye laser, a frequency-quadruplicated diode

laser and gas excimer lasers consisting of F_2 (157 nm), ArF (193 nm), KrF (248 nm), XeBr (282 nm) or XeCl (308 nm).

52. Method of recording data in an optical memory plate according to claim 1, by the step of exposing said plate with X-rays having an energy in the range of 20 kVp up to 200 kVp with a dose within the range of 1 mGy to 200 mGy.

53. Method of recording data in an optical memory plate according to claim 2, by the step of exposing said plate with X-rays having an energy in the range of 20 kVp up to 200 kVp with a dose within the range of 1 mGy to 200 mGy.

54. Method of recording data in an optical memory plate according to claim 3, by the step of exposing said plate with X-rays having an energy in the range of 20 kVp up to 200 kVp with a dose within the range of 1 mGy to 200 mGy.

55. Method of reading-out data inscribed in an optical memory plate according to claim 4, wherein read-out of data proceeds with radiation in the same wavelength range as inscription radiation.

56. Method of reading-out data inscribed in an optical memory plate according to claim 5, wherein read-out of data proceeds with radiation in the same wavelength range as inscription radiation.

57. Method of reading-out data inscribed in an optical memory plate according to claim 6, wherein read-out of data proceeds with radiation in the same wavelength range as inscription radiation.

58. Method of reading-out data inscribed in an optical memory plate according to claim 4, wherein read-out of data proceeds with radiation in a longer wavelength range from 550 nm up to 700 nm than said inscription radiation.

59. Method of reading-out data inscribed in an optical memory plate according to claim 5, wherein read-out of data proceeds with radiation in a longer wavelength range from 550 nm up to 700 nm than said inscription radiation.

60. Method of reading-out data inscribed in an optical memory plate according to claim 6, wherein read-out of data proceeds with radiation in a longer wavelength range from 550 nm up to 700 nm than said inscription radiation.